

WHAT IS CLAIMED IS:

1. A mobile device apparatus comprising:
  - a short term memory;
  - an application program configured to store data in the short term memory;
  - a long term memory;
  - a store program configured to store data in the short term memory in the long term memory; and
  - a restore program configured to detect a discrepancy between data stored in the short term memory and data stored in the long term memory, and if a discrepancy is detected, to copy data related to the discrepancy from the long term memory in the short term memory.
2. The mobile device apparatus of Claim 1, wherein the store program is further configured to run automatically.
3. The mobile device apparatus of Claim 1, wherein the restore program is further configured to run automatically.
4. The mobile device apparatus of Claim 1, wherein the short term memory is at least one of a compact flash memory, a memory stick, a smart media card, a micro-drive, a USB flash drive, a secure digital memory, a multimedia card, and a hard drive.
5. The mobile device apparatus of Claim 1, wherein the restore program is further configured to detect a discrepancy using check sum techniques.
6. The mobile device apparatus of Claim 1, wherein the data stored includes at least one of application program data, program settings, binary files, queued messages, infrastructure data, communications software, transactional data, communications software settings, system registry data, and database records.
7. A method of mobile restore comprising:
  - periodically storing data saved in short term memory to long term memory;
  - detecting discrepancies between the data saved in short term memory and the data saved in long term memory; and
  - if discrepancies are detected, replacing the data saved in short term memory with the data saved in long term memory.

8. The method of Claim 7, wherein the data periodically saved in short term memory is automatic.

9. The method of Claim 8, wherein the data periodically saved in long term memory is automatic.

10. The method of Claim 7, wherein the discrepancies are automatically detected.

11. The method of Claim 7, wherein the replacing the data saved in short term memory is automatic.

12. The method of Claim 11, wherein the replacing the data saved in long term memory is automatic.

13. The method of Claim 7, wherein the discrepancies are detected using check sum techniques.

14. The method of Claim 7, wherein the data periodically saved in short term memory includes at least one of application program data, program settings, binary files, queued messages, infrastructure data, communications software, transactional data, communications software settings, system registry data, and database records.

15. A method of detecting failure of a mobile device, the method comprising:  
receiving a first set of data from volatile memory;  
receiving a second set of data from non-volatile memory; and  
determining whether the first set of data matches the second set of data.

16. The method of Claim 15 further comprising if the first set of data does not match the second set of data, replacing the first set of data with the second set of data in volatile memory.

17. The method of Claim 15, wherein determining whether the first set of data matches the second set of data comprises determining whether the first set of data is an exact duplicate of the second set of data.

18. The method of Claim 15 further comprising if the first set of data does not match the second set of data identifying a subset of the first set of data that does not match the second set of data.

19. The method of Claim 15 further, wherein check sum techniques are used to determine whether the first set of data matches the second set of data.

20. A mobile device system comprising:

means for periodically storing data saved in short term memory to long term memory;

means for detecting discrepancies between the data saved in short term memory and the data saved in long term memory; and

means for replacing the data saved in short term memory with the data saved in long term memory if discrepancies are detected.

21. A system having a storage device containing instructions that, when executed, cause the system to perform the method of:

periodically storing data saved in short term memory to long term memory;

detecting discrepancies between the data saved in short term memory and the data saved in long term memory; and

if discrepancies are detected, replacing the data saved in short term memory with the data saved in long term memory.

22. A mobile device apparatus comprising:

volatile memory;

an application program configured to store data in the volatile memory;

non-volatile memory;

a first module configured to access data in the volatile memory and store it in the non-volatile memory; and

a second module configured to determine a discrepancy exists between data stored in the volatile memory and data stored in the non-volatile memory, and at least partly in response to determining discrepancy exists, to access data related to the discrepancy from the non-volatile memory and to store the accessed data in the volatile memory.

23. The mobile device apparatus of Claim 22, wherein the first module is configured to automatically access data in the volatile memory and automatically store it in the non-volatile memory.

24. The mobile device apparatus of Claim 22, wherein the second module is configured to automatically determine a discrepancy exists.

25. The mobile device apparatus of Claim 22, wherein the second module is configured to automatically access data related to the discrepancy from the non-volatile memory and to store the accessed data in the volatile memory.

26. The mobile device apparatus of Claim 22, wherein the second module is configured to use check sum techniques to determine whether a discrepancy exists.

27. The mobile device apparatus of Claim 22, where the data stored in volatile memory includes at least one of application program data, program settings, binary files, queued messages, infrastructure data, communications software, transactional data, communications software settings, system registry data, and database records.